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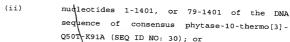
What is claimed is:

- 1. A phytase that comprises an amino acid sequence which is at least 93.80% identical to the sequence of amino acids 1-467 of consensus phytase-10 (SEQ ID NO: 26).
  - A phytase that is encoded by a DNA sequence that is at least 95.88% identical to nucleotides 12-1412 of the DNA sequence of consensus phytase-10 (SEQ ID NO: 25).
  - 3. A phytase that comprises an amino acid sequence chosen from
  - (i) SEQ ID NO: 26, or amino acids 1-438 thereof; or an amino acid sequence encoded by
    - (ii) nucleotides 12-1412, or 90-1412 of SEQ ID NO: 25.
- 4. A phytase that comprises an amino acid sequence chosen from
  - (i) consensus phytase-10-thermo[3],
  - (ii) variants of (i), further including the mutations Q50T, K91A, or (Q50T+K91A), the latter variant being shown in Fig. 8,
  - (iii) amino acids 27-467 of any of the sequences of (i)
     and (ii),
- 25 (iv) SEQ ID NO: 31, or amino acids 1-441 thereof; or an amino acid sequence encoded by
  - (v) nucleotides 1-1401, or 79-1401 of SEQ ID NO: 30.
  - 5. A phytase that comprises
- 30 an amino acid sequence chosen from
  - (i) consensus phytase-1-thermo[8],

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- (ii) variants of (i), further including the mutations Q50T K91A, or (Q50T+K91A), the latter variant being shown in Fig. 7,
- (iii) amino acids 27-467 of any of the sequences of (i) and (ii), or
- (iv) SEQ ID No: 29, or amino acids 1-441 thereof; or an amino acid sequence encoded by
  - (v) nucleotides 1-1407, or 79-1407 of SEQ ID NO: 28.
- 10 6. A phytase that comprises the amino acid sequence of consensus phytase-11 (SEQ ID NO: 27).
- 7. A DNA sequence that comprises a DNA-sequence encoding a phytase of claim 1.
- 8. A DNA sequence that comprises a DNA-sequence encoding a phytase, wherein the phytase-encoding DNA-sequence is (i) at least 95.88% identical, or (ii) hybridizes under high stringency conditions, to nucleotides 12-1412 of the DNA sequence of consensus phytase-10 (SEQ ID NO: 25).
- 9. A DNA sequence that comprises a DNA-sequence that encodes a phytase, wherein the phytase comprises an amino acid sequence that is at least 93.80% identical to the sequence of amino acids 25 1-467 of consensus phytase 10 (SEQ ID NO: 26).
- 10. A DNA sequence that comprises a DNA-sequence that encodes a phytase, and wherein the phytase-encoding DNA-sequence comprises

  (i) nucleotides 12-1412 or 90-1412 of the DNA sequence of consensus phytase-10 (SEQ ID NO: 25);



(iii) nuclectides 1-1401, or 79-1401 of the DNA sequence of consensus phytase-1-thermo[8]-Q50T-KplA (SEQ ID NO: 28).

- 11. A vector comprising a DNA sequence according to claim 7.
- 10 12. A microbial host cell comprising a DNA sequence according to claim 7, or the vector according to claim 11.
- 13. A process for producing a phytase, the process comprising culturing the host cell according to claim 12 under conditions
  15 permitting the production of the phytase, and recovering the phytase from the culture broth.
  - 14. A food, feed or pharmaceutical composition comprising a phytase of claim 1.

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